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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/691,807 10/19/00 KHANDROS

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EXAMINER

MM41/1107

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ART UNIT

PAPER NUMBER

2815
DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/691,807

Applicant(s)
Khandros et al

Examiner
Sheila V. Clark

Art Unit
2815



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 19, 2001
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-62 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-32 and 52-62 is/are allowed.
- 6) ☒ Claim(s) 33 is/are rejected.
- 7) ☒ Claim(s) 34-51 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

Art Unit: 2815

The applicant is asked to submit copies of the references contained in the PTO-1449 filed 10-19-2001. Due to the huge number of references represented on said applicant is asked to kindly submit said references in the order that they appear on said PTO-1449 to permit easier review. Application no. 09/122, 219 (an anisotropic adhesive connection) is in the processing stages of being allowed.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honn et al.

Honn et al (Figure 2A, 2B) shows a first semiconductor chip 30 having a front surface and a rear surface and contacts 58 on said front surface. A transposer substrate 28 is shown having contact pads 49 (connected to pins 24-see figure 2B) thereon and extending beneath the rear surface of the first chip whereby at least some of the contacts on said first chip are electrically connect to the contact pads of the substrate. Said substrate is adapted to connect the first chip with other elements of a circuit (active/passive elements in the transposer). A second chip 36 is shown connected overlying the front surface of the first chip whereby at least some of the contacts of the first chip are shown connect to at least some of the circuits of the second chip.

As Honn et al teaches the interconnective features recited in the claims as discussed above Honn et al fails to teach specific features of said second chip being movable with respect to the

Art Unit: 2815

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first. As the claims fail to recite any specific features that would specifically characterize the moving feature, moving or displacing chips from interconnection assemblies is well know in this art. Therefore it would have been obvious to one having ordinary skill in this art at the time the invention was made to move one chip with respect to the other whereby the ordinary artisan would be motivated to modify or move said chip for the purposes of testing, in the process of assembly and environmental characteristic would also render stress related circumstances to create corrosion to the interconnections and thereby moving one chip with respect to the other.

Claim 33 is rejected.

Claims 34-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and pending the insertion of claims language relative to the movable feature to be suggested by the Examiner.

Claims 2-32 and 52-62 are considered allowable over the prior art of second. The backing element feature recited in the claims fails to be a feature popular in chip stacking in this

Art Unit: 2815

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technology prior to 1990. Prior art references of having more recent dates such as Sundstrom and Yamaji (both cited) appear to show use of backing element technology.

It is suggested that the applicant call the Examiner to discuss claim language relative to the moveable feature in the claims that would more specifically identify the type of moving feature as well as the function of said moving features so that this application may be further considered for allowance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner S.V.Clark whose telephone number is (703) 308-4924.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee, can be reached on (703) 308-1690. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

November 2, 2001


SHEILA V. CLARK
PRIMARY EXAMINER